

Module 1.4	<b>Mathematics</b> (Technology I)
Semester	1 (WS)
Qualification objectives	The main focus is on application-oriented and practical problem-solving methods. At the end of the module, the students shall have acquired fundamental knowledge in:
Syllabus	<p>Part 1 - Basics</p> <ul style="list-style-type: none"> <li>• Theory of sets, arithmetic, algebra.</li> <li>• Equations, inequations.</li> </ul> <p>Part 2 - Details</p> <ul style="list-style-type: none"> <li>• Geometry, trigonometry.</li> <li>• Matrices, determinants.</li> <li>• Vectors, analytic geometry.</li> <li>• Functions of a variable.</li> <li>• Differential calculus.</li> <li>• Integral calculus.</li> <li>• Theory of probabilities, statistics.</li> </ul>
Type of module	Compulsory module
Teaching and learning methods	Seminar, 40 participants
Assessment	Written exam  Requirement for successfully passing the module: Students must gain at least the grade „ausreichend (satisfactory)“ (4.0) to pass the examination.
Prerequisites	No prerequisites. Students who have little prior knowledge of mathematics or have not had math lessons for a longer period of time (former vocational training, or similar education) are recommended to take part in a preparatory course in mathematics.
Usability	ISSM
Student workload	60 + 120
Contact hours	60 + 15
Independent study	120
ECTS points	6
Duration and frequency	15 sessions offered once a year
Language	English*
Reading list	The most recent study materials will be distributed at the beginning of the semester.

\* As a rule, the modules in the International Degree Program Shipping and Chartering B.A. are provided in English only. Exceptions might occur for specific lectures to be taught in German and will be announced by the individual lecturer in advance.